

WHAT IS CLAIMED IS:

1. A method of performing image processing using image data generated by an image generator and image generation information that is associated with the image data and that includes at least aperture information, operating mode information, and lens focal length information at the time of generation of the image data, the method comprising the step of:

executing image quality adjustment to adjusting sharpness of the image data on the basis of the aperture information, the operating mode information, and the lens focal length information included in the image generation information.

2. A method according to claim 1 wherein the image quality adjustment step includes the steps of:

judging on the basis of the operating mode information whether to execute the image quality adjustment to adjust sharpness of the image data; and

when it is judged to execute the image quality adjustment, determining a degree of sharpness adjustment on the basis of the aperture information and the lens focal length information.

3. A method according to claim 1 wherein the image quality adjustment step includes the steps of:

judging on the basis of the operating mode information whether the operating mode in the image generator at the time of generation of the image data is portrait mode or not; and

when it is judged that the operating mode is portrait mode, executing a selected one of the following processes:

a) not executing the image adjustment; and

b) executing weak sharpness adjustment that is weaker than the case where an aperture value is set under standard shooting conditions of the image generator.

5 4. A method according to claim 1 wherein the image quality adjustment step includes the steps of:

obtaining an aperture value used at the time of generation of the image data from the aperture information, and judging whether the aperture value was manually set by a user; and

10 when it is judged that the aperture value was manually set, and when the aperture value is in a predetermined range of at least a portion of an entire possible range of the aperture value, executing sharpness adjustment that is stronger than the case where the aperture value was set under standard shooting conditions of the image generator.

15 5. A method according to claim 4 wherein the strong sharpness adjustment is executed when the aperture value is equal to or greater than a predetermined value.

20 6. A method according to claim 4 wherein the degree of sharpness adjustment in the strong sharpness adjustment is set stronger as the aperture value becomes higher.

25 7. A method according to claim 4 wherein the image generation information further includes information relating to a maximum value of aperture value utilizable in the image data generator that generated the image data, and

the strong sharpness adjustment is executed when the aperture value is the maximum aperture value.

8. A method according to claim 4 wherein the degree of sharpness adjustment in the strong sharpness adjustment is set stronger as the lens focal length becomes greater.

5 9. An image processing device for performing image processing using image data generated by an image generator and image generation information that is associated with the image data and that includes at least aperture information, operating mode information, and lens focal length information at the time of generation of the image data, wherein

10 the image processing device comprises an image quality adjuster that, on the basis of the aperture information, together with the operating mode information and lens focal length information included in the image generation information, adjusts sharpness of the image data.

15 10. A computer program product for causing a computer to execute a process for adjusting image quality of image data, using image data generated by an image generator and image generation information that is associated with the image data and that includes at least aperture information, operating mode information, and lens focal length information
20 at the time of generation of the image data, the computer program product comprising:

 a computer-readable medium; and

 a computer program stored on the computer-readable medium, the computer program including a program for causing a computer to execute
25 sharpness adjustment of the image data, on the basis of the aperture information, the operating mode information, and lens focal length information included in the image generation information.

 11. A method of performing image processing using image data
30 generated by an image generator and image generation information that is associated with the image data and that includes at least aperture

information and operating mode information at the time of generation of the image data, the method comprising the steps of:

analyzing the image data to obtain a sharpness characteristic value indicating a characteristic relating to sharpness of the image represented by the image data; and

executing image quality adjustment on the basis of the sharpness characteristic value, the aperture information, and the operating mode information included in the image generation information, to adjust sharpness of the image data.

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12.A method according to claim 11 wherein the image quality adjustment step includes the steps of:

judging on the basis of the operating mode information whether to execute the image quality adjustment to adjust sharpness of the image data, and

when it is judged to execute the image quality adjustment, determining a degree of sharpness adjustment on the basis of the aperture information and the sharpness characteristic value.

13.A method according to claim 11 wherein the image quality adjustment step includes the steps of:

judging on the basis of the operating mode information whether the operating mode in the image generator at the time of generation of the image data is portrait mode or not; and

when it is judged that the operating mode is portrait mode, executing a selected one of the following processes:

a) not executing the image adjustment; and

b) executing weak sharpness adjustment that is weaker than the case where the aperture value is set under standard shooting conditions of the image generator.

14.A method according to claim 11 wherein the image quality adjustment step includes the steps of:

obtaining an aperture value used at the time of generation of the image data from the aperture information, and judging whether the aperture value was manually set by a user, and

when it is judged that the aperture value was manually set, and when the aperture value is in a predetermined range of at least a portion of an entire possible range of the aperture value, executing sharpness adjustment that is stronger than the case where the aperture value was set under standard shooting conditions of the image generator.

15.A method according to claim 14 wherein the strong sharpness adjustment is executed when the aperture value is equal to or greater than a predetermined value.

16.A method according to claim 14 wherein the degree of sharpness adjustment in the strong sharpness adjustment is set stronger as the aperture value becomes higher.

17.A method according to claim 14 wherein the image generation information further includes information relating to a maximum value of aperture value utilizable in the image data generator that generated the image data, and

the strong sharpness adjustment is executed when the aperture value is the maximum aperture value.

18.A method according to claim 14 wherein the degree of sharpness adjustment in the strong sharpness adjustment is set weaker as the sharpness indicated by the sharpness characteristic value becomes stronger.

19. An image processing device for performing image processing using image data generated by an image generator and image generation information that is associated with the image data and that includes at least aperture information and operating mode information at the time of generation of the image data, wherein

the image processing device comprises an image quality adjuster that analyzes the image data to obtain a sharpness characteristic value indicating a characteristic relating to sharpness of the image represented by the image data, and that adjusts the sharpness of the image data on the basis of the sharpness characteristic value, together with the aperture information and the operating mode information included in the image generation information.

20. A computer program product for causing a computer to execute a process for adjusting image quality of image data, using image data generated by an image generator and image generation information that is associated with the image data and that includes at least aperture information and operating mode information at the time of generation of the image data, the computer program product comprising:

a computer-readable medium; and

a computer program stored on the computer-readable medium, the computer program comprising:

a first program for causing a computer to analyze the image data to obtain a sharpness characteristic value indicating a characteristic relating to sharpness of the image represented by the image data; and

a second program for causing the computer to adjust the sharpness of the image data on the basis of the sharpness characteristic value, together with the aperture information and the operating mode information included in the image generation information.